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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,012	06/30/2003	Ivan Roson	11016-0010	1946

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EXAMINER

SUKMAN, GABRIEL S

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,012

Applicant(s)

ROSON ET AL.

Examiner

Gabriel S. Sukman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



DETAILED ACTION

Drawings

The drawings were received on 4 March 2005. These drawings are not acceptable. The correction to figure 4 is acceptable but new figure 10 is not acceptable. The newly submitted figure 10 is identical to the original figure 1, but the discussion regarding figure 10 in the specification seems to be directed to the substance of original figure 1D, which was not cancelled. This situation must be resolved.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The amendments to the specification are acceptable. In view of applicant's remarks, the objections to the specification are withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation, "said radial plan" in lines 13-15. The word "plan" must be corrected to reflect the terminology used in the specification.

Claims 2-10 depend from claim 1 and are therefore rejected as well.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,490,556 to Bennett, Jr. et al. (hereinafter referred to as Bennett)

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in view of U.S. Patent Application Publication No. US 2002/0008341 A1 to Yamada et al. (hereinafter referred to as Yamada).

Bennett clearly discloses all of the limitations of claim 1 except for the inclusion of a fluid mount isolator, as can be seen in figures 3 and 4 of Bennett. Further, Bennett discloses the tendency of vibration from jet engines to peak at two separate vibration frequencies and discloses that each pair of dynamic absorbers may attenuate a respective one of the vibration peaks (see col. 3, lines 8-51). Yamada teaches a hydraulic vibration isolator to isolate vibrations between a vibrating structure that is connected to a resonating structure. Such a device is particularly useful in engine mount situations to prevent harmful and uncomfortable effects on a cabin structure of a vehicle that is connected to a vibrating engine structure. It would have been obvious to one having ordinary skill in the art at the time the invention was made to install the hydraulic vibration isolator of Yamada between the linkages of Bennett that attach the yoke to the engine structure in order to further reduce vibration emanating from the engine structure and to make the experience more comfortable for passengers aboard the aircraft.

The limitations of claim 2 are taught by the modified invention of Bennett in view of Yamada since the dynamic absorbers of Bennett are tuned by adjusting the compression and the fluid isolator of Yamada is tuned by adjusting its stiffness. It would have been obvious to assign the most appropriate vibration damper for each major tone felt by the structure as a matter of routine skill.

The limitations of claims 3 and 4 are taught by the modified invention of Bennett as well since the hydraulic vibration isolators would necessary be located between the dynamic absorbers (since that is where the engine connection of Bennett is located) and the mount includes transversal shafts, 40, to mount the dynamic absorbers.

The limitations of claim 5 are taught by the modified invention of Bennett in view of Yamada since the absorbers consist of metallic alloy (steel) and a resilient material (see col. 3, line 66 through col. 4, line 12).

The limitations of claim 7 are taught by the modified invention of Bennett in view of Yamada since it would have been obvious to use a commonly known and used material such as a carbon-tungsten steel as a matter of design choice and routine skill since no particular criticality has been disclosed as being associated with any material.

The limitations of claims 8-10 are taught by the modified invention of Bennett in view of Yamada since Bennett discloses a washer (62) and clearly discloses the limitations of the claims in figure 5.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bennett in view of Yamada as applied to claims 1 and 5 above, and further in view of U.S. Patent No. 4,697,781 to Hamano et al. (hereinafter referred to as Hamano).

The modified invention of Bennett in view of Yamada discloses all of the limitations of claim 6 except for specifying that the resilient material is rubber or an elastomeric material. Hamano, however, discloses a similar dynamic absorber in which rubber is utilized as the resilient material. It would have been obvious to one having

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ordinary skill in the art to use the dynamic absorber of Hamano on the structure of Bennett in order to take advantage of the disclosed benefits of the Hamano damper such as deterioration prevention and increased life of the damper.

Response to Arguments

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine the references is the perpetual need to reduce vibration as much possible. The vibration absorber of Bennett is taught to attenuate the specific frequencies of vibration while the hydraulic absorber of Yamada is a more adaptable vibration absorber and thus would further reduce the vibration effects felt by the passengers. It is further noted that the modification suggested by the examiner is not that the absorber of Yamada would replace an absorber of Bennett, but rather that the absorber of Yamada would be mounted between some linkages between the engine and the airframe, not necessarily replacing those of Bennett.

Conclusion

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel S. Sukman whose telephone number is (703) 308-8508. The examiner can normally be reached on M-F, 8:30-6:00, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gss



MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER